

UNIVERSITY OF MINNESOTA COMPUTER CENTER  
Deadstart Systems Newsletter

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NOTICE OF CHANGES TO THE SYSTEM

Tom Lanzatella installed a new version of modset HISTORY which explains the mod scheme used at UCC. The new version includes a description of changes discussed in DSN 7,1 p. 2. Tom also changed the ACCOUNT CLOSED... dayfile message to indicate the correct phone number of Jack Schwab.

Kevin Matthews installed three modsets to DUMPPF from our pals at CDC. The mods do the following:

- 1) change the listing format slightly
- 2) make the TF=PFU option work right for future versions of PFDUMP tapes.
- 3) repair an error related to FET setup prior to purging a file.

After 15 months of tough development effort, Don Mears installed the UNDERLN terminal type (see DSN 5, 20 p. 161).

Bill Sackett changed the Stimulator so that certain default characteristics are assumed when the program is executed on the C720.

Steve Collins repaired a spelling error in LISTVAL and fixed NOTIFY so that it will not try to read or write on an execute-only file. Steve also contributed a new version of XEDIT which has the Y command removed

and the E-option added. These are both approved changes. Their installation makes the XEDIT program agree with published documentation.

Finally, Steve installed a new version of CCL. The new version allows asterisks (\*) to be treated as data, not as separators. This means that user numbers with asterisks can be passed as parameters.

Andy Hastings reinstalled approximately 140 CDC modsets on JPL. The modsets were reinstalled according to new and minor changes in the mod scheme. Andy also repaired a notable error in PROFILE. The problem was that the PROFILE P-option, which gives the user the option of specifying the name of the profile file, could be used to make PROFILE read and write MODVAL's VALIDUZ by specifying P=VALIDUZ. This works because VALIDUZ and PROFILE have nearly identical structure. A smart, energetic and diabolical person could probably make PROFILE rewrite sections of VALIDUZ, however, we doubt that anyone got a start at this.

#### PROPOSED CHANGES TO THE SYSTEM

Make ASML1 Control Statement Callable - by D. Rubenstein

I propose to change the Callprg entry for ASML1 to make it control statement callable. This change would be implemented in the Callprg index for all mainframes. The packages MACROL1, PDPSIM and ASML1 are the set of programs at UCC which provide for PDP-11 assembly language simulations. Both MACROL1 and PDPSIM are already control statement callable. This change would provide more consistency in using these products.

#### DISCUSSION TOPICS

Typewriter-Quality Terminal Service - by M. J. Frisch

Thea Hodge and I are UCC's ad hoc technical text processing task force. The main device we are looking at to augment our facilities is a Qume "Twin-Trac" printer which is used in several commercial word processing systems that have technical text processing features. It has two daisy wheels giving a character set of about 190 characters and is otherwise very much like the Anderson-Jacobson terminal that is used to print our newsletter and YUCCS. It features high quality output and runs at about 30-50 characters/second. There is an RS-232 interface for the Qume so it can be used in a time-sharing environment, or it can be connected to our PDP-11 front end at Lauderdale according to Tom Lanzatella. Since the print wheels are delicate and there is no keyboard, we feel the Qume should be run as a closed-shop device by UCC Operations staff.

The main topic of discussion is how to integrate Qume service into our system. Keep in mind that users will want to specify which daisy wheels are to be mounted on the Qume and what type of paper should be used (for example, mailing labels). It is possible that foreign language wheels such as Greek might be mounted so operator instructions as to which wheel to mount or which special form paper to use can't always be printed

on the Qume. We will assume that these can only be changed at the beginning of a job since it takes 2-5 minutes to change a wheel or insert a special form. Also, it is possible that more than one Qume printer might be obtained in the future and placed at other UCC Stations on East Bank, West Bank or St. Paul Campus.

I envision the Qume service as follows. The user ROUTE's the desired file (possibly with a repeat count) to the appropriate queue or uses some special utility to do the same thing. A special utility might be needed if we can't get ROUTE to specify wheels for the Qume. When the queue is dumped, the directions would be printed on an associated terminal such as a Decwriter as to which wheels and special forms are needed and where the output is to be delivered. Then the output files would be printed on the Qume, with a pause between jobs for operator intervention. Some sort of rerun capability would be needed in case the paper jams or the ribbon runs out.

Tom Lanzatella suggested we connect the Qume to our PDP-11 front end and write appropriate code to drive it from some special queue. This would not require any Cyber console operator intervention but is limited to the Lauderdale site and can't be easily adapted to other stations.

Rich Franta suggested we connect the Qume to our new RJE station which is driven by a microcomputer. Under our earlier guidelines, this could only be done at closed shop RJE's, which presently excludes Lauderdale. Qume output could be sent to the RJE along with normal printed output and it would be up to the RJE to sort out which is which. An advantage to this is that all closed shop sites that have our new RJE system can be run with the same software package.

I suggest we write a queue dumper that would place the Qume files in a permanent file for an Operations staff account number. The Qume and an associated Decwriter would be used to log-in to NOS timesharing. An appropriate procedure file could be invoked to dump the directings to the Decwriter and the output to the Qume. Console operators would have to initiate the dumping of queues to the permanent file, or maybe to several permanent files if we assign a file to each Qume site.

We haven't seriously considered pricing but a setup charge will be required because of the above-average need for operator intervention. This could be minimized if the Qume driver program were smart enough to group identical wheel/form types together so no pause would be needed between jobs in such groups.

Discussion topics are:

Does this all make sense?

Are there any other advantages and disadvantages to the methods of Qume operation?

Is there a preferred method?

Are there any flaws in the ideas presented here?

SYSTEM MAINTENANCE: People and Procedures

Last Week's Systems Group Meeting - by T. W. Lanzatella

Steve Collin's proposal dealing with the on-line questionnaire was accepted (see DSN 7, 2 p. 5). The questionnaire will run for about a week on the C720.

KCM talked briefly about VAX business. He thinks we will probably end up running both VMS and UNIX. He is also considering a multi-site journey to view production VAX systems.

Paul Thompson brought up the topic: Should Project Numbers be hashed? This question was raised after discussing G. Jenson's proposal "PROFILE CHANGES" (see DSN 6, 21 p. 181 and DSN 6, 22 p. 196). Paul studied the problem and found that hashing passwords using a one-way hash would not be possible since master users are supposed to be able to list all project numbers under their various charge numbers. A one-way hash would prohibit this. Proponents of hashing said that master users should keep lists of their project numbers. They would then never have to obtain lists from PROFILE. We noted, however, the frequency that passwords are forgotten would surely be maintained for project numbers and this is unacceptable for the accounting group. Paul also suggested assigning a password to each project number. We noted that a poor student has already got to specify 4 things in order to login. Is a fifth really fair?

The battered subject of terminals in offices came up. Those in attendance were quite evenly divided in favor or against. Some felt that productivity would be increased. Others felt that personal terminals were elitist in that they would never be purchased for the segment of our work force which needs terminals most; the UGRA's and PA's. The terminals would instead sit idle (mostly) in administrator's offices.

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Cyber Deadstart Dump Analysis from Friday, 16 January to Thursday, 5 February - by J. J. Drummond

Friday, 16 January

Cyber 172

14:57

N.A.

Numerous disk errors caused by some incorrect CMRDECK entries necessitated a level three recovery to clear-up the problem. No dump was taken.

17:00

N.A.

The 885 disk (SPL) was getting errors and eventually the problem was traced to a faulty port on one of the controllers that caused errors only when both mainframes were accessing the drive simultaneously. SPL was reloaded to the spare 885 drive. No dump was taken. A level zero deadstart was performed.

Friday, 16 January

Cyber 74

15:05

DD2021

PFM hung dropping tracks on a non-shared device; therefore the problem seems unrelated to the disk problems on the Cyber 172. More investigation is required. A level zero deadstart was performed.

17:45

N.A.

System taken down to facilitate reload of SPL. A level zero deadstart was performed.

Thursday, 22 January

Cyber 74/172

12:14

N.A.

Both systems were taken down to move SPL back to the spare 885 drive. The CE's had prematurely announced that the problem of 16 January was fixed. No dump was taken. A level zero deadstart was performed.

Friday, 23 January

Cyber 74

13:47

DD2022

QAC hung at BATCHIO's control point. One of the operators tried to unhang it and blanked the scopes. A level three recovery was successful.

Friday, 30 January

Cyber 172

16:13

DD2025

A solid memory failure caused the scopes to blank. We reconfigured the system to run with 65K less memory and ran until the CE's came and replaced the module. A level one recovery was then done at 19:50.

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Cyber 720 Deadstart Dump Analysis (1/16 - 2/7) - by B. E. Blasing

There were no unscheduled deadstarts for this period. The last crash was on 12/10/80.